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CARLSON, GASKEY & OLDS, P.C.
400 WEST MAPLE ROAD
SUITE 350
BIRMINGHAM, MI 48009

EXAMINER

SORKIN, DAVID L

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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Paper No. 504

Application Number: 09/864,809
Filing Date: May 24, 2001
Appellant(s): BELLASALMA ET AL.

David L. Wisz
For Appellant

EXAMINER'S ANSWER

MAILED
MAY 27 2004
GROUP 1700

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This is in response to the appeal brief filed 22 March 2004.

(1) *Real Party in Interest*

A statement identifying the real party in interest is contained in the brief.

(2) *Related Appeals and Interferences*

A statement identifying the related appeals and interferences which will directly affect or be directly affected by or have a bearing on the decision in the pending appeal is contained in the brief.

(3) *Status of Claims*

The statement of the status of the claims contained in the brief was correct at the time the brief was filed. However, subsequent to an appeals conference, claims 11, 22, 27 and 29 are no longer considered rejected, but instead are objected to as depending from rejected claims.

(4) *Status of Amendments After Final*

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) *Summary of Invention*

The summary of invention contained in the brief materially contradicts applicant's disclosure in the following aspect: On page 3, lines 2-3 of the brief it is stated "Fluid flow through passage 30 is thus no longer limited by valve 32A when valve 32A is in a fully open position". Oppositely, the specification as originally filed states in paragraph [7], "flow through the first valve in its fully open position provides the limiting flow restriction". Similarly, in paragraph [8] it is states "the valve opens. Fluid can now flow though the valve at a rate suppressed by the first valve". Likewise in paragraph [28], "flow through

Art Unit: 1723

opening 36A when 32A is in its fully open position (Figure 2B) provides the limiting flow restriction". Furthermore, in paragraph [32], "opening 36A is aligned with the passage 30. Fluid material may now flow through the valve assembly 20 at a rate suppressed by valve 32A". Likewise, the sentence bridging pages 2 and 3 of the brief is materially contradicted by the portions of the originally filed specification cited above.

(6) *Issues*

The appellant's statement of the issues in the brief was substantially correct at the time the brief was filed. However, subsequent to an appeal conference, the rejections corresponding to issues I and II are no longer maintained. In other words, all rejections under section 112, first paragraph and second paragraph, are withdrawn. Also, under the heading "IV. 35 U.S.C. 103(a)" appellant refers to rejection under "102(b)". The examiner assumes appellant means 103(a) rather than 102(b).

(7) *Grouping of Claims*

Appellant's brief includes a statement that the claims do not stand or fall together and provides reasons as set forth in 37 CFR 1.192(c)(7) and (c)(8). In addition to claims 1, 4-10, 12, 14, 16, 17, 21, 26, 28 and 30 which stand or fall together, appellant separately argues the following subsets of claims: Group B (claims 2, 18, 20 and 31), Group C (claims 3 and 19); Group D (claims 11 and 22) and Group E (claims 27 and 29). Of these groups, groups D and E are no longer relevant because the claims of these groups are no longer rejected. Also, the arguments presented supposedly for Group B (claims 2, 18, 20 and 31) have no relevance to claim 31.

(8) Claims Appealed

The copy of the appealed claims contained in the Appendix to the brief is correct.

(9) Prior Art of Record

US 1,196,121	Larsen	9-1916
US 887,120	Paulson	5-1908

(10) Grounds of Rejection

The following grounds of rejection are applicable to the appealed claims:

Note: regarding scope of the instant claims, "where a patentee defines a structurally complete invention in the claim body and uses the preamble only to state a purpose or intended use for the invention, the preamble is not a claim limitation" *Rowe v. Dror*, 42 USPQ2d 1550, 1553 (Fed. Cir. 1997). There is no indication that applicant is claiming the mold (23) discussed in the specification. While a "mix head" having an inlet and outlet is positively recited in independent claims 1 and 17, such a broad recitation is satisfied, for example, by any tube, conduit or duct.

Claims 1-7 and 17-19, 26, 28, and 30-31 are rejected under 35 U.S.C. 102(b) as being anticipated by Larsen (US 1,196,121). Regarding claim 1, Larsen ('121) discloses a valve assembly comprising a mix head (6,5 the bottom one in Fig. 3) comprising an inlet to and outlet from a mix section, an input port to a passage (see tops of Figs. 1-3); a plurality of sequentially activatable valves (including 8,8') communicating with said passage to selectively suppress flow through the passage; and an output passage to said mix head (see bottoms of Figs. 1-3). Regarding claim 2, a controller sequentially activates the valves to meter an initial flow (see page 1 line 89 to

page 2 line 27). Regarding claim 3, said controller activates each of said plurality of valves in response to a predetermined pressure (see col. 4, lines 15-72). Regarding claim 4, each of said valves includes a spring bias (12). Regarding claim 5, each valve includes a spring bias (12) toward an open position. Regarding claim 6, the assembly includes a pneumatic actuator to selectively active each valves (see page 2, lines 20-27). Regarding claim 7, each valve defines a longitudinal axis and provides an opening transverse to the axis and alignable with said passage (see Figs. 2 and 3). Regarding claim 17, Larsen ('121) discloses a system comprising a mix head (6,5 the bottom one in Fig. 3) comprising an inlet to and outlet from a mix section; an input port to a passage (see tops of Figs. 1-3), said input port communicating with a feed assembly (see Figs. 1-3); a plurality of sequentially activatable valves (including 8,8') each defining a longitudinal axis, each of said plurality of valves including an opening transverse to the longitudinal axis an alignable with said passage to selectively suppress a flow of fluid through said passage (see Figs. 2 and 3); a bias (12) adjacent each of said plurality of sequentially activatable valves to bias said valve toward and open position; an actuator to selectively activate each of said plurality of sequentially activatable valves (see page 1 line 89 to page 2 line 27); and an output port from said passage, said output port communicating with said mix head (see bottom of Fig. 3). Regarding claim 18, a controller sequentially activates said valves (see page 1 line 89 to page 2 line 27). Regarding claim 19, the controller activates each valve in response to a predetermined pressure (see page 1 line 89 to page 2 line 27). Regarding claims 26 and 28, the plurality of sequentially activated valves is located within a valve housing mounted

adjacent said mix section (see Fig. 3). Regarding claims 30 and 31, said plurality of sequentially activatable valves intersect said passage in a substantially perpendicular orientation (see Figs. 1-3; page 1, lines 54-58).

Claims 1-5, 7-10, 12, 14, 16-21, 26, 28, 30 and 31 are rejected under 35

U.S.C. 102(b) as being anticipated by Paulson (US 887,120). Regarding claim 1, Paulson ('120) discloses a valve assembly comprising a mix head (30 or a downstream portion thereof) comprising an inlet to and outlet from a mix section, an input port to a passage; a plurality of sequentially activatable valves (15/18, 16/19, 17/20) communicating with said passage to selectively suppress flow through the passage; and an output passage (see drawing). Regarding claim 2, the arrangement includes a controller (39,40) to sequentially activate said valves to meter an initial flow. Claim 3 only discusses how the device is intended to be operated and fails to further structurally limit the claimed device. One could operate the assembly in the manner described. Regarding claim 4, each of said valves includes a spring bias (41). Regarding claim 5, each valve includes a spring bias (41) toward an open position. Regarding claim 7, each valve defines a longitudinal axis and provides an opening (for example, 31, 34, 37) transverse to the axis and alignable with said passage (see drawing). Regarding claim 8, first, second and third valves (15-20) are disclosed each having a longitudinal axis transverse to the passage. Regarding claim 9, first valve (16/19) is adjacent the input port. Regarding claim 10, each valve includes an aperture (for example, 31, 34, 37). The apparatus is capable of being operated in the manner described in claims 12-16. Regarding claim 17, Paulson ('120) discloses a system comprising a mix head (30 or a

downstream portion thereof); an input port to a passage (53), said input port communicating with a feed assembly; a plurality of sequentially activatable valves (15/18, 16/19, 17/20) each defining a longitudinal axis, each of said plurality of valves including an opening (for example, 31, 34, 37) transverse to the longitudinal axis and alignable with said passage to selectively suppress a flow of fluid through said passage; a bias (41) adjacent each of said plurality of sequentially activatable valves to bias said valve toward an open position; an actuator (40) to selectively activate each of said plurality of sequentially activatable valves; and an output port (from 17 to 30) from said passage, said output port communicating with said mix head. Regarding claim 18, a controller (40) is capable of sequentially activating said valves. Claim 19 only discusses how the device is intended to be operated and fails to further structurally limit the claimed device. One could operate the assembly in the manner described. Regarding claim 20, three valves (15/18, 16/19, 17/20) are disclosed. Regarding claim 21, each valve includes an aperture (for example, 31, 34, 37). Regarding claims 26 and 28, the plurality of sequentially activated valves is located within a valve housing mounted adjacent said mix section (see drawing). Regarding claims 30 and 31, said plurality of sequentially activatable valves intersect said passage in a substantially perpendicular orientation (see drawing).

Claims 8-10, 12, 14, 16, 20 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Larsen (US 1,196,121). Regarding claims 8 and 20, Larsen ('121) discloses two valves rather than three; however, it has been held that it is obvious to duplicate parts for a combined or multiplied effect. See *St. Regis Paper Company v.*

Bemis Company, Inc. 193 USPQ 8 (CA 1977) and *In re Harza* 124 USPQ 378 (CCPA 1960). Regarding claim 9, the first valve is adjacent the input port (see Figs. 1-3).

Regarding claim 10 and 21, the valves have apertures (see Fig. 2). The apparatus is capable of being operated in the manner described in claims 12, 14 and 16.

(11) Response to Argument

Issues I and II

Appellant's arguments regarding section 112 rejections are not responded to herein, because, subsequent to an appeal conference, these rejections are no longer maintained.

Issue III(a): Rejection of claims 1-7 and 17-19, 26, 28, and 30-31 as being anticipated by Larson (US 1,196,121) under section 102(b).

Appellant states that the term "mix head" is too broadly construed by the examiner; but offers no alternative manner in which the term should be construed. Mixing can occur in any vessel and often occurs spontaneously, through diffusion, in accordance with the second law of thermodynamics to maximize entropy. While structures such as stirrers and deflectors are known to assist mixing, there is no reason to read such additional structures into the claims and the instant application does not disclose any such additional mixing structure. The examiner considers the limitation in claim 1, "a mix head comprising an inlet to a mixer section and an outlet from the mixer section" to be satisfied by the conduit section (5,6) depicted in the lower portion of Fig. 3 of Larson ('121). Mixing could take place in this structural element, for example, if an

inhomogeneous fluid were flowing therethrough and became more homogeneous therein through diffusion. Larsen ('121) need not disclose a step of mixing to anticipate the claim, because a machine, not a process, is being claimed. While in the instant disclosure, the mix head has plural inlets, there is no reason to read a requirement of plural inlets into the claim. Applicant chose to require plural inlets in dependent claims 27 and 29 (which are not rejected), but this is not a reason to read the requirement of plural inlets into the term "mix head".

Claims 2, 18, 20 and 31

Contrary to page 7 of the brief, claim 20 is not rejected as being anticipated by Larsen ('121). No argument relevant to claim 31 is presented under the heading "claims 2, 18, 20 and 31". Regarding claims 2 and 18, Larsen ('121) indeed discloses a controller to sequentially activate said plurality of sequentially activatable valves to meter an initial flow of the fluid". As explained on page 1 line 95 to page 2 line 27 of Larsen ('121), pressurized fluid entering through "nipples 16" acts against the force of springs 12 (the force of which may be adjust by screws 14). Different set points for the two screws 14 would result in sequential activation of the valves, even with the same fluid pressure being applied to both nipples 16, for example as fluid pressure to the nipples is increased or decreased. Of course Larsen ('121) need not disclose a step of sequentially activating the valves, because the claims are to a machine, not a process. Larsen ('121) thusly discloses control structure capable of controlling the valves so that they would be activated sequentially. The examiner disagrees with applicant's statement "the controller limitation must do something" (emphasis by appellant).

Oppositely, the examiner considers that no limitation in a proper machine claim requires anything to be done. Only process claims require things to be done. As held in *Hewlett-Packard Co. v Baush & Lomb Inc.* 15 USPQ2d 1525, 1528 (Fed. Cir 1990), “apparatus claims cover with a device *is* not what a device *does*” (emphasis in original).

Claims 3 and 19

As explained above, by setting screws 14 of Larsen ('121) to different settings, the valves would be activated sequentially in response to a predetermine pressure applied though nipples 16.

Issue III(b): Rejection of claims 1-5, 7-10, 12, 14, 16-21, 26, 28, 30 and 31 as being anticipated by Paulson (US 887,120) under section 102(b).

Appellant states that the term “mix head” is too broadly construed by the examiner; but offers no alternative manner in which the term should be construed. Mixing can occur in any vessel and often occurs spontaneously, through diffusion, in accordance with the second law of thermodynamics to maximize entropy. While structures such as stirrers and deflectors are known to assist mixing, there is no reason to read such additional structures into the claims and the instant application does not disclose any such additional mixing structure. The examiner considers the limitation in claim 1, “a mix head comprising an inlet to a mixer section and an outlet from the mixer section” to be satisfied by the conduit section (30) or a downstream portion thereof depicted in the drawing of Paulson ('120). Mixing could take place in this structural element, for example, if an inhomogeneous fluid were flowing therethrough and became

more homogeneous therein through diffusion. Paulson ('120) need not disclose a step of mixing to anticipate the claim, because a machine, not a process, is being claimed. While in the instant disclosure, the mix head has plural inlets, there is no reason to read a requirement of plural inlets into the claim. Applicant chose to require plural inlets in dependent claims 27 and 29 (which are not rejected), but this is not a reason to read the requirement of plural inlets into the term "mix head". While the device of Paulson ('120) is intended for use in playing music, a prior art device may be for a vastly different purpose and still be anticipatory under section 102. For example, in *Northam Warren Corp. v. D.F. Newfield Co.* 22 USPQ 313 (E.D.N.Y. 1934) a patent to a device for cleaning fingernails was held invalid because a device for writing having the same structure was found in the prior art.

Claims 2, 18, 20 and 31

No argument relevant to claim 31 is presented under the heading "claims 2, 18, 20 and 31". Regarding claims 2, 18 and 20, Paulson ('120) indeed discloses a controller (39,40) to sequentially activate said plurality of sequentially activatable valves to meter an initial flow of the fluid". Clearly, using fingers, control structure (39,40) would permit sequential activation. The examiner disagrees with applicant's statement "the controller limitation must do something" (emphasis by appellant). Oppositely, the examiner considers that no limitation in a proper machine claim requires anything to be done. Only process claims require things to be done. As held in *Hewlett-Packard Co. v. Baush & Lomb Inc.* 15 USPQ2d 1525, 1528 (Fed. Cir 1990), "apparatus claims cover with a device *is* not what a device *does*" (emphasis in original).

Art Unit: 1723

Claims 3 and 19

Control structure (39,40) permits sequential activation of the valves in response to a predetermined pressure needed to overcome the springs 41.

Issues IV: Rejection of claims 8-10, 12, 14, 16, 20 and 21 under section 103(a) as unpatentable over Larsen (US 1,196,121).

These claims all depend upon claims rejected under 102(b). Appellant appear to rely upon the limitations of the parent claims rejected under 102(b) for the patentability of the claims rejected under 103(a). No discernable additional argument is presented for these claims.

For the above reasons, it is believed that the rejections should be sustained.

Application/Control Number: 09/864,809
Art Unit: 1723

Page 13

Respectfully submitted,

David L. Sorkin
Examiner
Art Unit 1723



David Sorkin

May 20, 2004

Conferees

Thomas Dunn 

Wanda Walker



CARLSON, GASKEY & OLDS, P.C.
400 WEST MAPLE ROAD
SUITE 350
BIRMINGHAM, MI 48009